



AIRCRAFT DEICING/ANTI-ICING ON THE GROUND

TRAINING - A KEY FACTOR FOR SAFETY

Dieter HERMAN
Director Technical Services
OCTAGON PROCESS INC.





DEICING/ANTI-ICING TRAINING

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DEICING/ANTI-ICING TRAINING HISTORY

- ❄ Until a few years ago, many companies within the industry did not provide training.
- ❄ Missing / non-sufficient training has very often been identified as a (supporting) reason for accidents and incidents, causing the loss of lives and equipment.
- ❄ In many cases, the staff received basic training, but no additional instruction – never being informed of new developments (e.g. Type IV fluids, etc.) and new rules.
- ❄ Many times, the training was only theoretical, with no testing or practical assessment.



DEICING/ANTI-ICING TRAINING REGULATIONS FOR WINTER OPS I

- ❄️ FAA: FAR 121.629 defines the reason for performing deicing/anti-icing, and provides the explanation for developing the “Winter Operations Program”.

The local PMI office is responsible for the operators adherence to the program.

- ❄️ JAA: The complete rule, JAR OPS 1.345(a), is only one sentence, and is nearly identical to the first paragraph of the FAR 121.629.

As a guideline for operators developing a program, Leaflet 4, an explanatory paper only, is available.



DEICING/ANTI-ICING TRAINING REGULATIONS FOR WINTER OPS II

- ❄ Other NAA's: Some are using different types of documentation (e.g. Russian Federation – own rules, PR China – ICAO Document, etc.) and many have not addressed the subject at all.
- ❄ Industry Programs: Due to the lack of rules in some countries, the airlines have developed their own programs. These are mainly based on international standards (e.g. ISO 11076, SAE ARP 4737, etc.).
For other operators it is difficult to accept such programs, since most are specific to the airline.



DEICING/ANTI-ICING TRAINING DOCUMENTATION FOR EDUCATION

- ❄ FAA: FAR 121.629
Amendment E
- ❄ JAA: JAR OPS 1.345(a)
JAR 66
Leaflet 4
- ❄ Other NAA's: Very rarely issue documents
Adoption of foreign paperwork
- ❄ Problem: No harmonization & acceptance in most cases



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PRESENT SITUATION I

- ❄️ FAA: Since “Winter Operation Programs” are approved by the local PMI, small differences exist between the airline’s programs - but they are mostly acceptable.
- ❄️ JAA: Very clear and restrictive regarding intervals and type of tests, but no real guidelines about the contents; execution lies with the NAA, so that the actual status is very different.
- ❄️ TC: The only authority which has set steps for the certification of ground service providers, as FAA and JAA are only addressing airlines.



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PRESENT SITUATION II

- ❄ Russian Federation: Does not accept training acc. FAA, JAA, or similar. Foreign operators have to perform training with local providers, in addition to the local courses.
- ❄ Germany: Adopted the, “AEA Deicing/Anti-Icing on the Ground Recommendations” as the local regulation for all domestic airlines.
- ❄ Other Authorities: Some countries are using different documents as the baseline, others are not acting at all, leaving the operators without rules or guidelines.



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PRESENT SITUATION III



The different standards, regulations and documents are leading to a lot of problems:

- The trainers have to travel around the globe, creating high costs for the airlines.
- Some agents receive several trainings before the season, confusing the staff.
- In many cases the training is not really successful, as the language barrier is not addressed.
- The content of different training sessions is not harmonized, and sometimes is even contradictory.



DEICING/ANTI-ICING TRAINING IMPROVEMENTS I

- ❄ The DAQCP (Deicing/Anti-Icing Quality Control Pool), with more than 30 member airlines, is auditing according a standardized checklist. The checklist is approved by all members and NAA's.

This makes it possible to accept the training for all of them, when the executing airline is approving it.
- ❄ The SAE G12 Committee is working on the document ARP 5149, which would allow for the development of harmonized training courses.

The document will hopefully be approved this summer.



DEICING/ANTI-ICING TRAINING IMPROVEMENTS II

- ❄ At least a small amount of airlines, agents, and manufacturers have developed training programs in different languages (e.g. Russian, Chinese, Romanian, etc.) to allow for better performance.
Due to the high costs, an update service is often not possible for every season.
- ❄ Some airlines started to exchange paperwork, but as long as authority rules are not harmonized, this will not be fully successful.



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PROBLEM AREAS I



Train-the-Trainer: Currently we have no real criteria: neither from the authorities, nor from the industry members.

Example: The trainer of an airline has retired, his/her replacement is selected, but has no previous experience, and there is no transition time.

The new person is accepted, but is he/she qualified? This situation doesn't seem possible, but it is the reality in the industry now, because of cost reduction programs and minimized overhead costs.



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PROBLEM AREAS II



Not all staff are covered by the regulations: Most rules only cover pilots, certifying mechanics, and the vehicle operators (sprayers).

We do not see information on training the laboratory personnel, the staff handling the fluid in the storage areas, and so on.

These people also have a major influence on a safe and economic deicing/anti-icing operation. But in principal, training is not mandated, and is the sole responsibility of the ground service provider.



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PROBLEM AREAS III



In many cases, practical training does not get the same attention as the theoretical education.

Very often, the students only get one or two practical spraying operations with water, and are placed into operation. No night or bad weather experience is gained in advance, but these are the most critical conditions.



This part of the training should be described by the regulatory authority in more detail, and with higher priority.



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FUTURE

- ❄ The industry should support the work on the SAE ARP 5149 document in order to get a common standard for developing training courses.
- ❄ A harmonization between the different regulatory authorities is required to allow the acceptance of training programs between different countries.
- ❄ Putting quality control programs in place, like the DAQCP, would force all involved parties to pay more attention to training.
- ❄ Existing regulations must be more strictly adhered to.

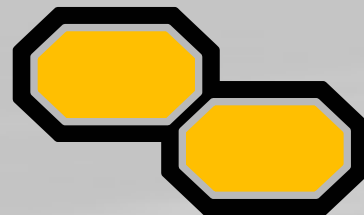


DEICING/ANTI-ICING TRAINING

SUMMARY

- ❄ Compared to the situation several years ago, the industry has made many improvements.
- ❄ Regulations are available from several NAA's, but some countries are not acting. This leaves a safety risk.
- ❄ All areas, and all involved personnel groups, must be covered to allow complete safety.
- ❄ Increased efforts in the field of quality control, like the DAQCP, would also help to provide better training.

THANK YOU



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